Econ 311: Behavioral and Experimental Economics

Prof. Jeffrey Naecker

Wesleyan University

Reciprocity

Motivating Evidence

- Recall dictator game from Forsythe et al (1994)
- What if we allow recipient to have some say in the matter?
  - 45 additional subjects drawn from same overall population
  - As before, one player proposes at division of a $5 endowment
  - New treatment: recipient can either accept or reject the offier
  - If reject, they both get $0
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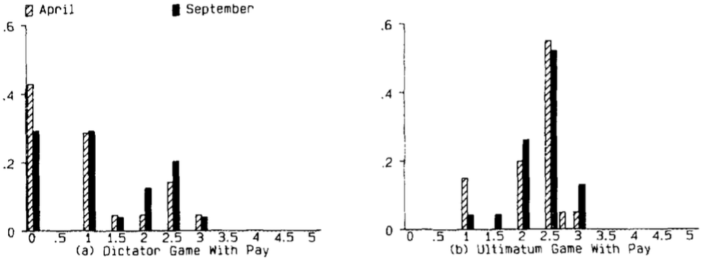
- Expected results from classical preferences?
  - Selfish responders should never reject a non-zero offer
  - Knowing this, proposer should offer smallest non-zero amount

Ultimatum Game: Responder Behavior

- Rejections do happen, though not very often
  - 8 out of 45 (18%) of offers were rejected in total
- Rejection likelihood increases as offers get smaller
  - No offers of $2.50 (ie 50% of pie) or higher were rejected
  - 5 of 6 (83%) of offers less than $2.00 were rejected
- Rejection is a form of *costly punishment*

Ultimatum Game: Proposer Behavior



- Proposals below \$2.00 extremely rare
- Strong peak at \$2.50 (50-50 split)
- So in equilibrium, rejections are rare because low offers are rare

Explaining Rejections

- Recall Fehr-Schmidt model from last lecture:

$$U(x_1, x_2) = \begin{cases} x_1 - \beta(x_2 - x_1) & \text{if } x_1 \leq x_2 \\ x_1 - \alpha(x_1 - x_2) & \text{if } x_1 > x_2 \end{cases}$$

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- So responder's desire for equity can lead to decision that decreases total welfare (aggregate payoffs)

The Trust Game

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- The *trust game* accomplishes this
  - One player, the *trustor* starts out with $\$X$
  - Passes some amount $\$I \in [0, \$X]$ to other player, the *trustee* (so far, just like dictator/utlimatum)
  - Trustee gets $R \cdot \$I$ for $R > 1$, ie the passed amount is multiplied by interest rate R before trustee receives it
  - Trustee then can return some amount $\$P \in [0, R \cdot \$I]$ to trustor

Trust Game: Evidence

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- Trustors start with \$10
- Trustors and trustees in different rooms
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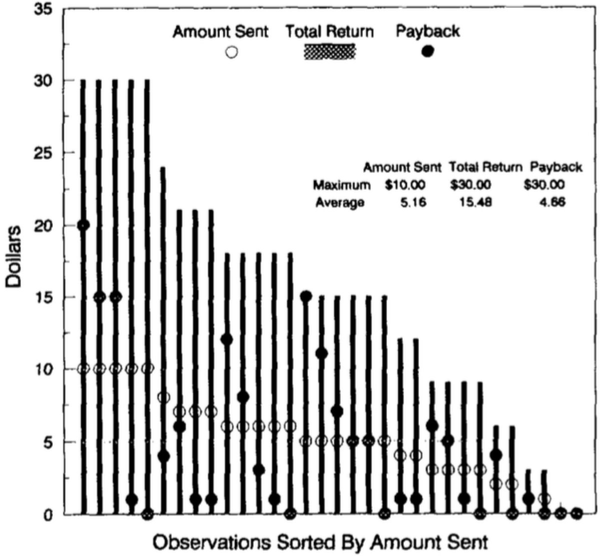
- Expected classical results?
  - Purely selfish trustees should return nothing
  - Therefore purely selfish trustors should pass nothing

Trust Game: Results



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  - Therefore average trustor would have been better off passing nothing
- Any limitations to design?
  - Trustees see amount passed, then make just one decision
  - Would be better to use *strategy method*
    - Trustee tells experimenter what they would pass back for every possible level of income, before seeing actual pass made by trustor